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AMENDMENTS TO THE ABSTRACT

After the claims, please insert a page containing the Abstract, which is attached hereto as a separately typed replacement page.

ABSTRACT

The invention relates to a gas sensor comprising a substrate of a first charge carrier type whereon a drain and a source of a second charge carrier type are arranged. A channel area is formed between the drain and the source. The gas sensor also comprises a gas sensitive layer comprising poles between which a gas induced voltage is produced according to the concentration of a gas which is in contact with the layer. In order to measure said voltage, a pole of the gas sensitive layer is capacitatively coupled to the channel area by means of an air gap and the other pole is connected to a counter-electrode having a reference potential. A hydrophobic layer is arranged on the surface of the gas sensor between the gas sensitive layer and the channel area and/or on a sensor electrode which is connected to a gate electrode arranged on the channel area.